

PATENT

09/164,216

REMARKS

This is an amendment under 37 CFR §1.116. The purpose of this amendment is to put the claims in condition for allowance or, alternately, in better form for appeal. The amendments and specific arguments herein, to the extent they were not presented earlier, are now presented because they are necessitated by the reference citations and arguments made by the Examiner in the last office action.

Since this response is being filed within two months of the mailing date of the final rejection, the courtesy of an advisory action is respectfully requested. Claims 15, 19 and 38-72 are in this application. Claims 58 and 63 have been amended to be in independent form. Claims 40-44 and 67-68 have been allowed. The Examiner objected to claims 58-59 and 63-64, but indicated that these claims would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Claims 58 and 63 have been amended to be in independent form, and are believed to include all of the limitations of the base claim. Claims 59 and 64 have not been amended as these claims depend from claims 58 and 63, respectively.

Applicant requests the Examiner to indicate whether the formal drawings submitted on September 9, 2002 have been entered into the case. Applicant further requests the Examiner to indicate if the power of attorney submitted on July 22, 2002 has been entered into the case.

The Examiner rejected claims 15, 19, 38-39, 45-57, 60-62, 65-66, and 69-72 under 35 U.S.C. §103(a) as being unpatentable over Gens et al. (U.S. Patent No. 5,515,225) considered alone, or in view of the Admitted Prior Art (APA). For the reasons set forth below, applicant respectfully traverses this rejection.

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Claim 15 recites, in part,

“a plurality of pads; [and]
“a plurality of ESD positive lines, the plurality of positive lines not being electrically connected to each other, none of the positive lines being directly connected to a pad. [Brackets added.]

Claims 51, 57, and 62 recite similar limitations.

In rejecting the claims, the Examiner argued that FIG. 16 of applicant's specification expressly identifies a pad (1620) that carries varying voltages, such as I/O signals, and does not expressly identify pads that carry steady voltages, such as power and ground. The Examiner then argued that since applicant's specification does not expressly identify pads that carry steady voltages, applicant's specification can only teach pads that carry varying voltages, such as I/O signals.

A specification, however, is not limited to its express teaching. One skilled in the art would understand that two or more of the unlabeled pads shown in applicant's FIG. 16 carry steady voltages, such as power and ground, because an integrated circuit will not work without pads that carry steady voltages. Thus, in addition to the sections of applicant's specification cited in the prior amendment that teach pads that carry steady voltages, which are hereby incorporated by reference, applicant's specification also indirectly teaches pads that carry steady voltages.

More importantly, the term in a patent claim is defined by the plain meaning of the term unless the applicant has otherwise provided a clear definition of the term in the specification. In the present case, the plain meaning of the term “pad” is well known in the art of semiconductor fabrication, and is a patterned metal region. Package lead wires or solder balls are commonly connected to pads. From what applicant can determine, there is nothing in the claims, applicant's specification, or applicant's FIG. 16 that changes the meaning of the term “pad.”

Thus, since applicant's specification and claims do not define the term “pad” to mean only a patterned metal region that carries varying voltages, the Examiner must use the plain meaning of the term “pad” (as understood by one skilled in the art). Using the plain meaning

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of the term "pad," the horizontal lines shown in FIG. 3 of Gens cannot be read to be the positive lines of the claims because these lines are connected to pads, the VCC1 and VCC2 pads.

As a result, claims 15, 19, 38-39, 45-57, 60-62, 65-66, and 69-72 are patentable over Gens, and Gens in view of the Admitted Prior Art (APA). In addition, claims 45, 58, and 63 are believed to be patentable for the further reasons set forth in the prior amendment, which are hereby repeated by incorporation. From what applicant can determine, the Examiner has not addressed applicant's arguments with respect to these claims.

With respect to independent claim 51, this claim recites, in part,

"a plurality of ESD switches connected to the ESD positive lines and the ESD negative ring . . . a switch of the plurality of ESD switches passing a current from a positive line to the negative ring when a voltage on the positive line rises at a first rate."

Claim 62 recites similar limitations.

In rejecting the claims, the Examiner pointed to the horizontal lines connected to the VDD1 and VDD2 pads as constituting the ESD positive lines, and diodes D1 and zener diode Z as constituting the plurality of ESD switches. However, as shown in FIG. 3 of Gens, the zener diode Z is not connected to a positive line as read by the Examiner. As a result, claims 51 and 62 are patentable over Gens, and Gens in view of the Admitted Prior Art (APA). In addition, since claims 52-56, 63-66, and 71-72 directly or indirectly depend from claims 51 and 62, respectively, claims 52-56, 63-66, and 71-72 are patentable over Gens for the same reasons as claims 51 and 62.

With respect to claims 69-72, applicant notes that if a diode D1 is read to be directly connected to a positive line, the diode D1 can not be read to be directly connected to a pad because the positive line lies between the diode D1 and the pad. As a result, claims 69-72 are patentable for these further reasons.

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for allowance. Therefore, the Examiner's early re-examination and reconsideration are respectively requested.

Respectfully submitted,
Dated: 9-23-03 By: Mark C. Pickering
Mark C. Pickering
Registration No. 36,239
Attorney for Assignee

30 Fifth Street, Suite 200
P.O. Box 300
Petaluma, CA 94953-0300
Direct Dial Telephone No. (707) 762-5583
Telephone: (707) 762-5500
Facsimile: (707) 762-5504
Customer No. 33402

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